

Understanding the economic impacts of sea-level rise on tourism prosperity: Conceptualization and panel data evidence

ABSTRACT

Sea-level rise is a long-term, intractable problem during which costly, large-scale inundation could occur in many countries; hence, tourism development should take this matter into account because ecology and biodiversity are the fundamentals underpinning tourism performance. This study conceptualizes an economic mechanism of the potential effects of sea-level rise on tourism development based on projected impacts for the 2001e2100 period. Data for 48 developing countries across Africa, Asia, and South America are analyzed. The theoretical framework proposes two hypotheses to determine the extent of contradiction between awareness and destruction in relation to environmental protection for tourism development. From the panel data regression results, although destructive effects are bound to dominate the entire 21st century, awareness is latent and has the potential to reverse the destructive outcomes. With evidence from essential economic elements, this study gives new insights into how severe the impacts of sea-level rise on tourism could be if shared values and adaptation measures to mitigate rising sea level are not substantively promoted around the globe. The new findings show a 0.95 standard-deviation decrease in tourism performance following a 1 standard-deviation increase in the economic loss related sea-level rise. Hence, in the main conclusions, we highlight that the projected effect of inundation-related deterioration on a country's tourism sector appears to be approximately on par with the costs of inundations to its economic growth.